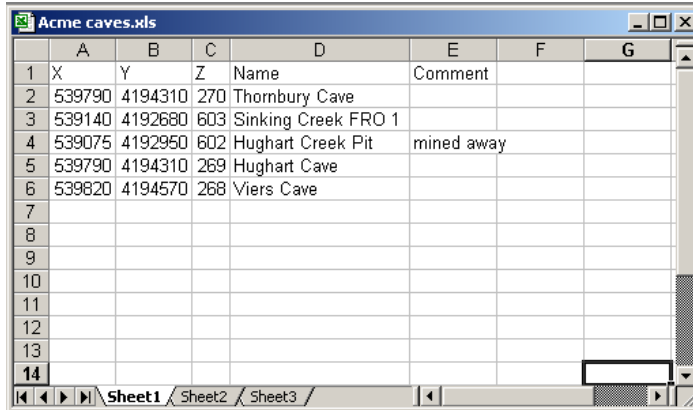


## HOWTO: Add Excel Data to ArcMap

1. Add column names to the first row of the excel file; these will become the field names for the dbf file.

Use **Format --> Column --> AutoFit Selection** to adjust the column widths, so that text fields are not truncated. In the example below the letter y was truncated from cell E4 because the column was not wide enough.



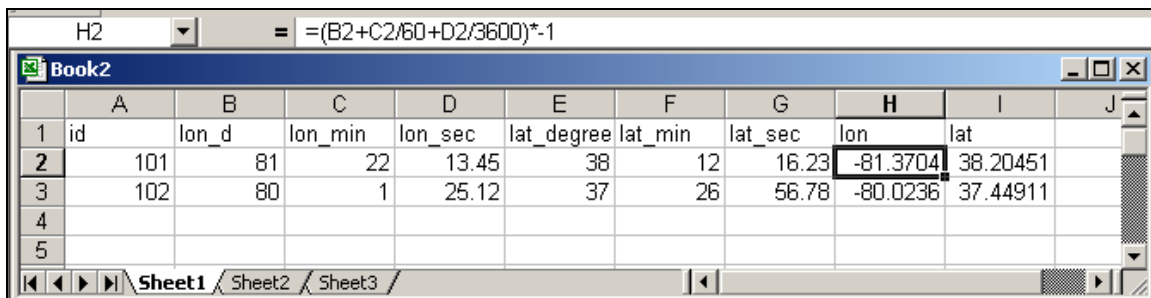
	A	B	C	D	E	F	G
1	X	Y	Z	Name	Comment		
2	539790	4194310	270	Thornbury Cave			
3	539140	4192680	603	Sinking Creek FRO 1			
4	539075	4192950	602	Hughart Creek Pit	mined away		
5	539790	4194310	269	Hughart Cave			
6	539820	4194570	268	Viers Cave			
7							
8							
9							
10							
11							
12							
13							
14							

2. Geographic coordinates (longitude/latitude) in degree, minute, second format need to be converted to decimal degrees. The formulas are:

$$\text{lon\_dd} = (\text{londeg} + (\text{lonmin} / 60) + (\text{lonsec} / 3600)) * -1$$

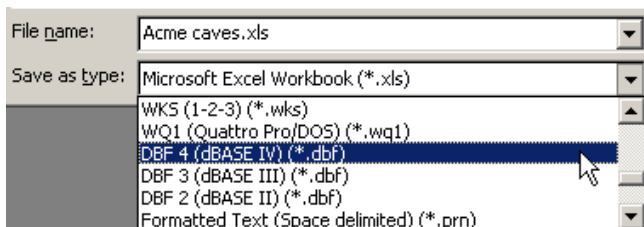
$$\text{lat\_dd} = \text{latdeg} + (\text{latmin} / 60) + (\text{latsec} / 3600)$$

Longitude needs to be negative, hence the multiplication by -1. Below is an example spreadsheet that performs the necessary conversion:



	A	B	C	D	E	F	G	H	I	J
1	id	lon_d	lon_min	lon_sec	lat_degree	lat_min	lat_sec	lon	lat	
2	101	81	22	13.45	38	12	16.23	-81.3704	38.20451	
3	102	80	1	25.12	37	26	56.78	-80.0236	37.44911	
4										
5										

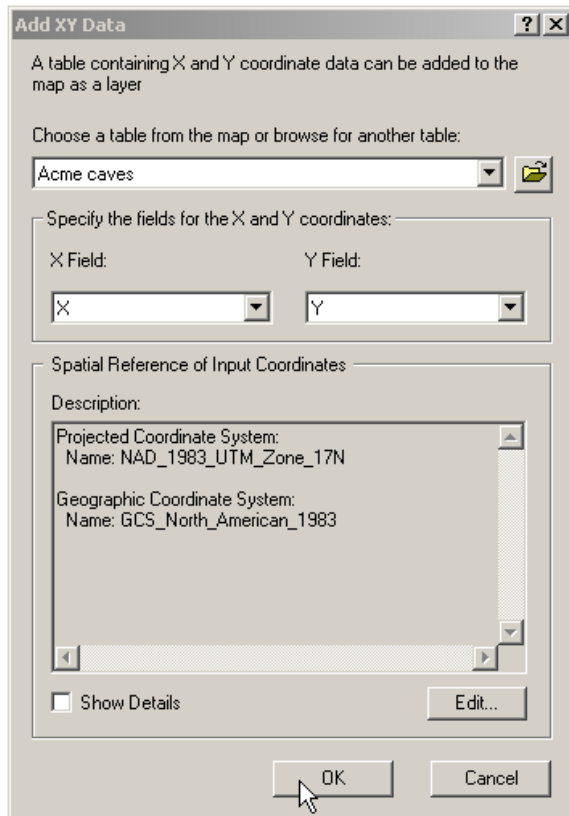
3. Save as a dbase IV file. under **File --> Save As**, select DBF 4 as the file type



4. **Close the file in excel after saving!** Windows will not allow two programs to access the same file at the same time, and Arcmap will not display an error—it just won't work.

5. In Arcmap, select **Tools --> Add XYData**. Locate the DBF file, select the XY fields, and select the coordinate system used.

For longitude/latitude coordinates, the X Field is longitude (-77 to -83 degrees) and the Y Field is latitude (37 to 41 degrees)



Optional:

5. Save the Events theme as a shapefile. Right click on the layer and select **Data --> Export Data** from the dropdown menu. Since shapefiles use a dbf file to store attribute info, **be sure to select a shapefile name that is different from the name given to the DBF file in step 2.**

